

Kashyap  
Serial no. 09/917,464  
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In the claims:

1. (currently amended) A method comprising:

joining by a first node of a network to a multicast group having a multicast address, the multicast address specified by a server using a multicast location identifier (LID) as its source lid (SLID), the first node receiving packets from the server due to the packets being sent to a unicast destination location identifier (DLID) of the first node, the server receiving reply packets from the first node having a non-multicast queue pair (QP), but a multicast DLID, where the joining is selected from the group essentially consisting of:

assigning the multicast address to the first node, such that communication to the multicast address is directed to the first node through the network, and,

mapping a multicast port on a switch of the network to a port on the first node, such that communication to the multicast address is directed to the port on the first node from the multicast port on the switch; and,

upon failure of the first node,

if the joining assigned the multicast address to the first node, joining by a second node of the network to the multicast group, such that the multicast address is assigned to the second node, and the communication to the multicast address is handled by the second node, and,

if the joining mapped the multicast port on the switch to the port on the first node, remapping the multicast port on the switch to a port on the second node, such that the communication to the multicast address is directed to the port on the second node.

2. (original) The method of claim 1, further comprising, if the joining assigned the multicast address to the first node, prior to the second node of the network joining the multicast group, the first node leaving the multicast group by the second node sending a leave request to a subnet manager (SM) on behalf of the first node.

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3. (original) The method of claim 1, further comprising, if the joining assigned the multicast address to the first node, upon failback by the first node, assigning the multicast address to the first node, such that communication to the multicast address is again handled by the first node.

4. (original) The method of claim 1, wherein, if the joining mapped the multicast port on the switch to the port on the first node, the multicast port on the switch is remapped to the port on the second node by the second node requesting to remap the multicast port on the switch to the second node to a subnet manager (SM), the SM remapping the multicast port on the switch to the port on the second node.

5. (original) The method of claim 1, further comprising, if the joining mapped the multicast port on the switch to the port on the first node, upon failback by the first node, remapping the multicast port on the switch to the port on the first node, such that communication to the multicast address is again directed to the port on the first node.

6. (original) The method of claim 1, wherein the joining by the first node of the network to the multicast group comprises the first node requesting to join the multicast group to a subnet manager (SM), the SM assigning the multicast address to the first node and mapping the multicast port on the switch to the port on the first node.

7. (original) The method of claim 1, wherein after the joining by the first node to the multicast group, the multicast group has only a single member, the first node.

8. (original) The method of claim 1, further comprising, upon failure of the first node, the second node initially detecting the failure of the first node.

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9. (currently amended) A system comprising:

a server;

a first node of a subnet having a port and initially having assigned thereto in a first mode a multicast address of a multicast group, such that initially communication to the multicast address is handled by the first node, the multicast address specified by a server using a multicast location identifier (LID) as its source lid (SLID), the first node receiving packets from the server due to the packets being sent to a unicast destination location identifier (DLID) of the first node, the server receiving reply packets from the first node having a non-multicast queue pair (QP), but a multicast DLID;

a second node of the subnet having a port;

a switch of the subnet having a multicast port initially mapped in a second mode to the port on the first node; and,

a management component of the subnet where, upon failure of the first node, the management component assigns the multicast address to the second node in the first mode, and remaps the multicast port on the switch to the port on the second node in the second mode, such that communication to the multicast address is handled by the second node.

10. (original) The system of claim 9, wherein the second node detects the failure of the first node.

11. (original) The system of claim 9, wherein the management component detects the failure of the first node.

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12. (original) The system of claim 9, wherein upon failback by the first node, the management component assigns the multicast address to the first node in the first mode, and remaps the multicast port on the switch to the port on the first node in the second mode.

13. (original) The system of claim 9, wherein each of the first node and the second node comprises at least one of: a host and a channel adapter (CA).

14. (original) The system of claim 9, wherein each of the first node and the second node comprises a channel adapter (CA) on a same host.

15. (original) The system of claim 9, wherein the network comprises a subnet having a subnet manager (SM), where the management component is the SM.

16. (currently amended) An article comprising:

a computer-readable medium; and,

a computer program stored in the medium and executable by a computer for performing one of two actions selected from the group essentially consisting of: assigning a multicast address of a multicast group that was initially assigned to a first node of a network that has failed to a second node of the network; and, remapping a multicast port on a switch of the network that was initially mapped to a port on the first node that has failed to a port on the second node,

wherein the multicast address is specified by a server using a multicast location identifier (LID) as its source lid (SLID), the first node receiving packets from the server due to the packets being sent to a unicast destination location identifier (DLID) of the first node, and the server receiving reply packets from the first node having a non-multicast queue pair (QP), but a multicast DLID.

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17. (previously presented) The article of claim 16, wherein the computer program assigns the multicast address of the multicast group that was initially assigned to the first node of the network that has failed to the second node of the network in response to receiving a request from the second node to join the multicast group.

18. (previously presented) The article of claim 16, wherein the computer program remaps the multicast port on the switch on the network that was initially mapped to the port on the first node to the port on the second node in response to receiving a remapping request from the second node.

19. (original) The article of claim 16, wherein the medium is a recordable data storage medium.

20. (cancelled)